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09/707,050	11/06/2000	Miyuki Enokida	B588-015	8306

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EXAMINER

LE, BRIAN Q

ART UNIT PAPER NUMBER

2623

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/707,050

Applicant(s)

ENOKIDA ET AL.

Examiner

Brian Q Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07/02/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 5, 8-12, 16, 18, 20, 23-27 and 31-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 8-12, 16, 18, 20, 23-27 and 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/02/2004 has been entered.

**Response to Amendment and Arguments**

2. Applicant's arguments with regard to claims 1, 3, 5, 8-12, 16, 18, 20, 23-27 and 31-34 have been fully considered, but are not considered persuasive because of the following reasons:

Regarding claim 1, the Applicant argues (page 13) that Sato does not teach the concept of determining a weighted value of a segmented region based on size, let alone on the ratio or sizes. The Examiner respectfully disagrees. The Applicant claimed the limitation broadly (not as disclosed in the specification) and thus resulted broad interpretations. Sato discloses a concept of calculating total of areas of found regions (determining weighted value of a segmented region based on size) base on the ratio of area SP over the area Sc (ratio of sizes) (FIG. 52, S235-S236). To further assist the Applicant with the guidance with claim language interpretations so that the Applicant can add further/more details limitations from the specification to the claims to overcome the prior arts, the Examiner is presenting MPEP, section 2111, Claim Interpretation; Broadest Reasonable Interpretation as follow: "The court explained that "reading a claim in light of the specification, to thereby interpret limitations explicitly recited in the claim, is a quite different thing from reading limitations of the specification into a claim,' to thereby narrow the scope of the claim by implicitly adding disclosed limitations which have no express basis in the

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claim.” The court found that applicant was advocating the latter, i.e., the impermissible importation of subject matter from the specification into the claim.). See also *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997) (The court held that the PTO is not required, in the course of prosecution, to interpret claims in applications in the same manner as a court would interpret claims in an infringement suit. Rather, the “PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in applicant’s specification.”).”).

Thus, the rejections of all of the claims are maintained.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 3, 5, 8-12, 16, 18, 20, 23-27 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claims 1, 16, 31, and 34, the claimed limitation “wherein the weight value increases as the ratio increases” raises new matter was not clearly support in the original disclosure. To the Examiner best understanding, the weight value depends on the percentage ratio rather then depends on ratio. Also, the aforementioned locations

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for amended limitations “calculating image similarity between the search source image and each of the plurality of images on the basis of the calculated weighted similarity of each of the segmented regions”. For example, the cited location (page 15, lines 13-21) shows the support determining of similarity between the important region and the unimportant region and not the similarity calculation between search source image and each of the plurality of images. Furthermore, FIG. 7, S76 and its support on page 15 show the inter-image distance calculation rather than the support of calculating the image similarity between the search source image and each of the plurality of images.

Claims are not specifically addressed depend from indefinite antecedent claims.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5, 8-12, 16, 18, 20, 23-27 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lipson U.S. Patent No. 6,463,426 and Sato U.S. Patent No. 6,246,804.

Regarding claim 1, Lipson teaches an image search method of searching for a desired image from a plurality of images stored in storage means (abstract), comprising:

A designation step of designating an arbitral region in a search source image (particular regions of the image) (abstract);

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A calculation step of dividing the search source image and each of the plurality of images stored in the storage means into the plurality of segmented regions, performing similarity calculation in units of the segmented regions to obtain similarity for each of the segmented regions between the designated search source image and each of the plurality of images stored in the storage means (generate scores in similarity calculation) (FIG. 5; FIG. 7B; FIG. 11, element 234), and calculating image similarity between a search source image and each of the plurality of images on the basis of the similarity for each of the segmented regions calculated in the first calculation step and the weight value set in the setting step (FIG. 7B, elements 162 and 164); and An acquisition step of acquiring an image as a search result from the plurality of images on the basis of the image similarity calculated in the second calculation step (FIG. 7B, elements 168 and 170).

However, Lipson does not clearly teach the setting step of setting a weight value in units of segmented regions obtained by segmenting the image into a plurality of segmented regions, based on a size of the designated arbitral region included in the segmented region. Sato teaches a method of retrieving and searching images (abstract) applying a method of setting step of setting a weight value (size information of arbitral region) (FIG. 4, element 302 and FIG. 47, S211) in units of segmented regions obtained by segmenting the image into a plurality of segmented regions, based on a size of the designated arbitral region included in the segmented region and specifically the weight value (calculating total of areas of found regions) depends on the ratio of sizes (the ratio of area SP over the area Sc) (FIG. 52, S235-S236). Modifying Lipson's method of searching and retrieving desired images according to Sato would be able to enhance the searching and retrieving capability by assigning values to size of interested region of the image to further

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increase higher accuracy and increase the searching speed by limiting the number of images to be search. This would improve processing and therefore, it would have been obvious to one of the ordinary skill in the art to modify Lipson according to Sato.

For claim 5, Lipson also teaches the method wherein the calculation step comprises a step of integrating the weighted similarities for the segmented regions to obtain the image similarity (the process of generating similarity between each of the primary image region and the target image region and the process of combining the similarity scores together, sort them and generate result to obtain the final image similarity) (FIG. 5; FIG. 7B; FIG. 11 and FIG. 11A).

Regarding claim 8, Lipson teaches the method further comprising a display step of displaying an image representing the image acquired in the acquisition step as the search result (FIG. 1, element 16).

For claim 9, Lipson teaches the method wherein the display step comprises displaying a thumbnail image of the image acquired in the acquisition step (FIG. 1A, element 20).

Referring to claim 10, Lipson further discloses the method wherein the display step comprises displaying an icon image corresponding the image acquired in the acquisition step (FIG. 1A).

Also for claim 11, Lipson also teaches the method wherein the display step comprises, when one of displayed images is selected, displaying details of an image linked to the image (FIG. 1A).

In addition to claim 12, Lipson discloses the method wherein the display step comprises displaying extracted images in an order of similarities (FIG. 1A).

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For claims 16, 18, 20, and 23-27, please refer back to claims 1, 3, 5, and 8-12 respectively for the explanations.

Regarding claim 31, please refer back to claim 1 for the explanation.

For claim 32, Sato also teaches the method wherein the setting step, the weight value of each segmented region is set based on a ratio of the designated arbitral region to the segmented region (FIG. 47, element S213 and S214 and FIG. 52, S236).

For claim 33, please refer back to claim 32 for the explanation.

Regarding claim 34, please refer back to claim 1 for the explanation.

### ***Contact Information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q Le whose telephone number is 703-305-5083. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5397 for regular communications and 703-308-5397 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

BL  
September 25, 2004



**SAMIR AHMED  
PRIMARY EXAMINER**